HD (IR) Vandal Proof Network Dome Camera User’s Manual

Version 1.1.1

Welcome

Thank you for purchasing our network camera!
This user’s manual is designed to be a reference tool for your system.
Please read the following safeguard and warnings carefully before you use this series product!
Please keep this user’s manual well for future reference!

Important Safeguards and Warnings

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated 12V DC or 24V AC in the IEC60950-1. **Please note: Do not connect these two power supplying sources to the device at the same time; it may result in device damage!**
We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
We are not liable for any problems caused by unauthorized modification or attempted repair.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Do not apply power to the camera before completing installation.
Please install the proper power cut-off device during the installation connection.
Always follow the instruction guide the manufacturer recommended.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

This series network camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
Please keep it away from the electromagnetic radiation object and environment.
Please make sure the CCD (CMOS) component is out of the radiation of the laser beam device. Otherwise it may result in CCD (CMOS) optical component damage.
Please keep the sound ventilation.
Do not allow the water and other liquid falling into the camera.
Thunder-proof device is recommended to be adopted to better prevent thunder.
The grounding holes of the product are recommended to be grounded to further enhance the reliability of the camera.

6. Daily Maintenance

Please shut down the device and then unplug the power cable before you begin daily maintenance work.

Do not touch the CCD (CMOS) optic component. You can use the blower to clean the dust on the lens surface.
Always use the dry soft cloth to clean the device. If there is too much dust, please use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device.
Please put the dustproof cap to protect the CCD (CMOS) component when you do not use the camera.
Dome enclosure is the optical component, do not touch the enclosure when you are installing the device or clean the enclosure when you are doing maintenance work. Please use professional optical clean method to clean the enclosure. Improper enclosure clean method (such as use cloth) may result in poor IR effect.

7. Accessories

Be sure to use all the accessories recommended by manufacturer.
Before installation, please open the package and check all the components are included.
Contact your local retailer ASAP if something is broken in your package.

Accessory Name	Amount
Network Camera	1
Quick Start Guide	1
Installation Accessories Bag	1
CD	1

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1 General Introduction

1.1 Overview

This series network camera integrates the traditional camera and network video technology. It adopts audio and video data collection, transmission together. It can connect to the network directly without any auxiliary device.

This series network camera uses standard H.264 video compression technology and G.711a audio compression technology, which maximally guarantee the audio and video quality.

This series network camera enclosure has the strong resistance capacity, which can guarantee the proper work performance under heavy strike. It supports real-time monitor and listening at the same time. It supports analog video output and dual-way bidirectional talk.

It can be used alone or used in a network area. When it is used lonely, you can connect it to the network and then use a network client-end. Due to its multiple functions and various uses, this series network camera is widely used in many environments such office, bank, road monitor and etc.

1.2 Features

User Management	● Different user rights for each group, one user belongs to one group. ● The user right shall not exceed the group right.
Storage Function	● Support central server backup function in accordance with your configuration and setup in alarm or schedule setting ● Support record via Web and the recorded file are storage in the client-end PC. ● Support built-in Micro SD card. ● Support local Micro SD card hot swap, support short-time storage when encounter disconnection.
Alarm Function	● Real-time respond to external local alarm input and video detect as user pre-defined activation setup and exert corresponding message in screen and audio prompt(allow user to pre-record audio file) ● Real-time video detect: motion detect, camera masking. ● Can generate an alarm when network abnormal, Micro SD card abnormal event occurred.
Network Monitor	● Network camera supports one-channel audio/video data transmit to network terminal and then decode. Delay is within 270ms (network bandwidth support needed) ● Max supports 20 connections. ● Adopt the following audio and video transmission protocol: HTTP, TCP, UDP, MULTICAST, RTP/RTCP, RTSP and etc. ● Support web access, widely used in WAN.
Network Management	● Realize network camera configuration and management via Ethernet. ● Support device management via web or client-end. ● Support various network protocols.
Peripheral Equipment	● Support the on-off alarm device to alarm via the sound or the light.
Power	● External power adapter DC12V/AC 24V ● Support PoE. **Warning!** **Do not connect these two power supplying sources to the device at the same**

	time; it may result in device damage!
Assistant Function	● Log function ● Support PAL/NTSC ● Support system resource information and running status real-time display. ● Day/Night mode auto switch (electromagnetic ICR switch). ● Built-in IR light. Support IR night vision (**For HDBW Series only**). ● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright. ● Support electronic shutter and gain setup. ● Support video watermark function to avoid vicious video modification.

1.3 Specifications

1.3.1 Performance

Please refer to the following sheet for network camera performance specification.

Model Parameter		**IPC-HDB/HDBW3202 Series**	**IPC-HDB/HDBW3101 Series**
System	**Main Processor**	TI Davinci high performance DSP	
	OS	Embedded LINUX	
	System Resources	Support real-time network, local record, and remote operation at the same time.	
	User Interface	Remote operation interface such as WEB, DSS, PSS	
	System Status	Micro SD card status, bit stream statistics, log, and software version.	
Video Parameter	**Image Sensor**	1/3-inch CMOS	
	Pixel	1920（H）*1080（V）	1280(H)*960(V)
	Day/Night Mode	Support day/night mode switch and electromagnetic IR-CUT at the same time.	
	Auto Iris	DC drive	
	Gain Control	Fixed/Auto	
	White Balance	Manual/Auto	
	BLC	Manual/Auto	
	Electronic Shutter	Manual/Auto PAL: It ranges from 1/3 to 1/10000. NTSC: It ranges from 1/4 to 1/10000.	
	Motorized Focus	Support remote motorized focus function.	
	Video Compression Standard	H264/JPEG/MJPEG	
	Video Frame Rate	PAL: Main stream（1920*1080@25fps） extra stream（704*576@25fps） NTSC: Main stream（1920*1080@30fps） extra stream（704×480@30fps）	PAL: Main stream（1280*960@25fps） Extra stream（704*576@25fps） Main stream（1280*720@25fps） extra stream（704*576@25fps） NTSC: Main stream（1280*960@30fps） extra stream（704×480@30fps） Main stream（1280*720@30fps） extra stream（704×480@30fps）

	Video Bit Rate	H.264: 56Kbps-8192Kbps. It is adjustable MJPEG: 128Kbps-0480Kbps. It is adjustable and bit rate is adjustable. Support customized setup.	
	Video Flip	Support mirror. Support flip function.	
	Snapshot	Max 1f/s snapshot. File extension name is JPEG.	
	Privacy Mask	Supports max 4 privacy mask zones	
	Video Setup	Support parameter setup such as bright, contrast.	
	Video Information	Channel title, time title, motion detect, privacy mask.	
	Lens	3~9mm@F1.2 motorized zoom focus lens	2.8~12mm@F1.4
	Lens Interface	¢14. Lens is the default accessories.	
Audio	**Audio Input**	1-channe	
	Audio Output	1-channel	
	Bidirectional Talk Input	Reuse the first audio input channel	
	Audio Bit Rate	16kbps 16bit	
	Audio Compression Standard	G.711a/G.711u/PCM	
Video	**Motion Detect**	396 (18*22) detection zones; sensitivity level ranges from 1 to 6 (The 6th level has the highest sensitivity) Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.	
	Video Loss	Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.	
Alarm Input		1-channel input，1-channel output	
Record and Backup	**Record Priority**	Manual>External alarm >Video detect>Schedule	
	Local Storage	Support Micro SD card storage	
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	Network Protocol	HTTP,TCP,ARP,RTSP,RTP,UDP,RTCP,SMTP,FTP,DHCP,DNS,DDNS,PPPOE,IPv4/v6,SNMP,QoS,UPnP,NTP.	
	Remote Operation	Monitor, system setup, log information, maintenance , upgrade and etc	
AUX Interface	**Video Output**	1-channel analog video output，BNC port, 9-pin port connection	
	Reset	Built-in RESET button	
	IR light	IR distance 10 to 20 meters (For HDBW series product only)	
General Parameter	**Power**	Support AC24V/DC12V power. PoE	
	Power Consumption	General series: below 5W. IR series: below 7W.	General series: below 3W. IR series: below 5W.
	Working Temperature	-10℃~+60℃	
	Working Humidify	10%~90%	
	Dimensions(mm)	¢151x119	
	Weight	1.25Kg	
	Installation	Support various installation modes	

1.3.2 Factory Default Setup

Please refer to the following sheet for factory default setup information.

<table>
<tr><th colspan="3" rowspan="2">Function Setup Type</th><th colspan="3" rowspan="2">Item</th><th colspan="2">Default setup</th></tr>
<tr><th>IPC-HDB/HDBW3202 Series</th><th>IPC-HDB/HDBW3101 Series</th></tr>
<tr><td rowspan="14">Camera Setup</td><td rowspan="11">Conditions</td><td colspan="3">Brightness</td><td colspan="2">50</td></tr>
<tr><td colspan="3">Contrast</td><td colspan="2">50</td></tr>
<tr><td colspan="3">Hue</td><td colspan="2">50</td></tr>
<tr><td colspan="3">Saturation</td><td colspan="2">50</td></tr>
<tr><td colspan="3">Gain mode</td><td colspan="2">Auto</td></tr>
<tr><td colspan="3">Gain limit</td><td colspan="2">80</td></tr>
<tr><td colspan="3">Exposure mode</td><td colspan="2">Auto</td></tr>
<tr><td colspan="3">Auto iris</td><td colspan="2">Enable</td></tr>
<tr><td colspan="3">Scene mode</td><td colspan="2">Auto</td></tr>
<tr><td colspan="3">Day/night mode</td><td colspan="2">Auto</td></tr>
<tr><td colspan="3">BLC</td><td colspan="2">Off</td></tr>
<tr><td colspan="3">Flip</td><td colspan="2">Disable</td></tr>
<tr><td rowspan="13">Video</td><td rowspan="13">Video bit stream</td><td rowspan="9">Main stream</td><td>Bit stream type</td><td colspan="2">General</td></tr>
<tr><td>Encode mode</td><td colspan="2">H.264B</td></tr>
<tr><td>Resolution</td><td>1080P（1920*1080）</td><td>720P (1280*720)</td></tr>
<tr><td>Frame rate （FPS）</td><td colspan="2">PAL: 25
NTSC:30</td></tr>
<tr><td>Bit stream type</td><td colspan="2">CBR</td></tr>
<tr><td>Reference bit rate</td><td colspan="2">3584-8192 Kb/S</td></tr>
<tr><td>Bit rate</td><td colspan="2">8192</td></tr>
<tr><td>I frame interval</td><td colspan="2">50</td></tr>
<tr><td>Watermark settings</td><td colspan="2">Enable</td></tr>
<tr><td>Watermark character</td><td colspan="2">DigitalCCTV</td></tr>
<tr><td rowspan="4">Extra stream</td><td>Enable</td><td colspan="2">Enable</td></tr>
<tr><td>Bit stream type</td><td colspan="2">General</td></tr>
<tr><td>Encode mode</td><td colspan="2">H.264B</td></tr>
<tr><td>Resolution</td><td>CIF(352×288/352×240)</td><td>CIF(352×288/352×240)</td></tr>
<tr><td>Frame rate （FPS）</td><td colspan="2">PAL: 25
NTSC:30</td></tr>
</table>

Function Setup Type		Item			Default setup	
					IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
				Bit rate type	CBR	
				Reference bit rate	192-1024Kb/S	
				Bit rate	640	
				I frame interval	50	
		Snapshot		Snap type	General snap	
				Image size	1080P（1920*1080）	720P (1280*720)
				Quality	Better	
				Interval	7s	
		Overlay		Privacy mask	Enable	
				Channel title	Enable	
				Time title	Enable	
		Path		Snapshot path	C:\PictureDownload	
				Record path	C:\RecordDownload	
	Audio	Main stream		Enable	Enable	
				Encode mode	G.711A	
		Sub(Extra) stream		Enable	Disable	
				Encode mode	G.711A	
Network setup		TCP/IP		Host name	IPC	
				Ethernet card	Wire(Default)	
				Mode	Static	
				MAC address	Depends on the device	
				IP version	IPV4	
				IP address	192.168.1.168	
				Subnet mask	255.255.255.0	
				Default gateway	192.168.1.1	
				Preferred DNS	8.8.8.8	
				Alternate DNS	8.8.8.8	
				Enable ARP/Pingto to set IP address service	Enable	
		Connection		Max connection	10	

Function Setup Type	Item		Default setup	
			IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
		TCP port	37777	
		UDP port	37778	
		HTTP port	80	
		RTSP port	554	
	PPPoE	Enable	Disable	
		User name	N/A	
		Password	N/A	
	DDNS	Server type	Disable ， CN99 DDNS	
		Server IP	none	
		Port	80	
		Domain name	none	
		User name	none	
		Password	N/A	
		Update period	5m	
	IP filter	Trusted sites	Disable	
	SMTP（email）	SMTP server	none	
		Port	25	
		Anonymity	Disable	
		User name	anonymity	
		Password	N/A	
		Sender	none	
		Authentication (Encrypt mode)	N/A	
		Title (Subject)	IPC Message	
		Main Receiver	N/A	
		Interval	0s	
		Health email	Disable ， interval=60m	
	UPnP	Enable UPnP	Disable	
	SNMP	SNMP v1	Disable	
		SNMP v2	Disable	
		SNMP port	161	
		Read community	public	
		Write community	private	
		Trap address	N/A	
		Trap port	162	

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
	Bonjour		Enable	Enable	
			Server name	“Device name+SN”. Depends on the device.	
	Multicast		Multicast address	239.255.42.42	
			Port	36666	
	Auto register		Enable	Disable	
			SN	1	
			Server IP	0.0.0.0	
			Port	7000	
			Sub-device ID	none	
	WIFI		On(Enable)	Enable	
	QoS		Real-time monitor	0	
			Command	0	
Event management	Video detect	Motion detect	Enable	Disable	
			Anti-dither	5 seconds	
			Sensitivity	3	
			Record Channel	Enable	
			Record Delay	10 seconds	
			Relay (Alarm) output	Enable	
			Alarm delay	10s	
			Send email	Disable	
			Activation	N/A	
			Address	0	
			Snapshot	Disable	
		Video (Camera) masking	Enable	Disable	
			Record Channel	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Record Delay	10 seconds	
			Send email	Disable	

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
			Activation	Disable	
			Address	0	
			Snapshot	Disable	
	Alarm setup	Relay (Alarm) activation	Enable	Disable	
			Relay input	Alarm1	
			Anti-dither	5s	
			Sensor type	NO	
			Record channel	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay (Alarm) delay	10s	
			Send email	Disable	
			Activation	N/A	
			Address	0	
			Snapshot	Disable	
		Relay (Alarm) output		1	
	Abnormity	No SD card	Enable	Disable	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
			Send email	Disable	
		Capacity warning	Enable	Disable	
			Capacity limit (Space threshold)	10%	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
			Send email	Disable	
		SD error card	Enable	Disable	
			Relay (Alarm) output	Enable	

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
			Relay output delay	10s	
			Send email	Disable	
		Disconnection	Enable	Disable	
			Record	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
		IP conflict	Enable	Disable	
			Record	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
Storage management	Destination(Storage)	FTP	FTP enable	Disable	
			Server IP	N/A	
			Port	21	
			User name	anonymity	
			Password	N/A	
			Remote storage path	share	
			Emergency storage to local path	Disable	
		Network storage	NAS enable	Disable	
			Mode	NFS	
			Server IP	N/A	
			Port	21	
			User name	N/A	
			Password	N/A	
			Remote storage path	N/A	
	Conditions (Record control)		Pack duration	8m	
			Pre-record	5s	
			Disk full	Overwrite	
			Record mode	Auto	

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
System management	General setup	Local setup	Device name	Device factory SN	
			Language	English	
			Video standard	NTSC	NTSC
		Date and time	Date format	Y-M-D	
			Time format	24H	
			Time zone	GMT+08:00	
			Current time	Sync PC	
			DST	Disable	
			DTS type	Week	
			Start time	00:00:00 of the first Sunday of the month	
			End time	00:00:00 of the second Monday of the month	
			Synchronize with NTP	Disable	
			NTP server	clock.isc.org	
			Port	37	
			Update period	10m	
	Auto maintenance		Auto reboot	Enable	
			Auto delete old files	Disable	

2 Structure

2.1 Dimensions

You can refer to the following figures for dimension information. The Unit is mm. See Figure 2-1 and Figure 2-2.

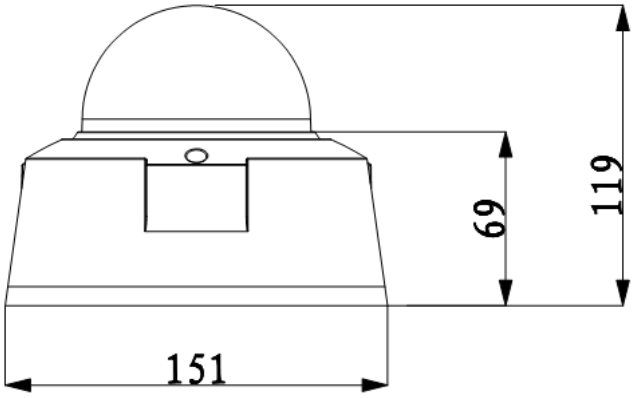


Figure 2-1

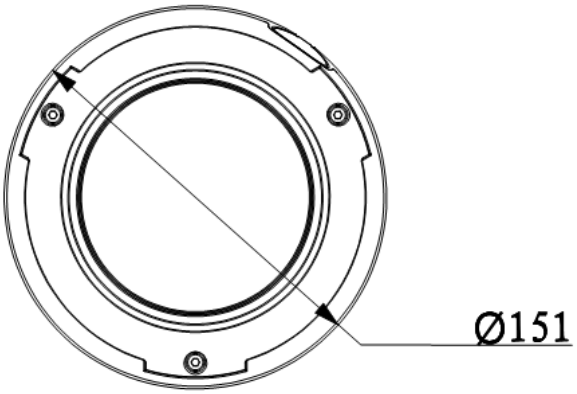


Figure 2-2

2.2 Port Description

For the non-IR series product, the interface is shown as in Figure 2-3 and Figure 2-4.

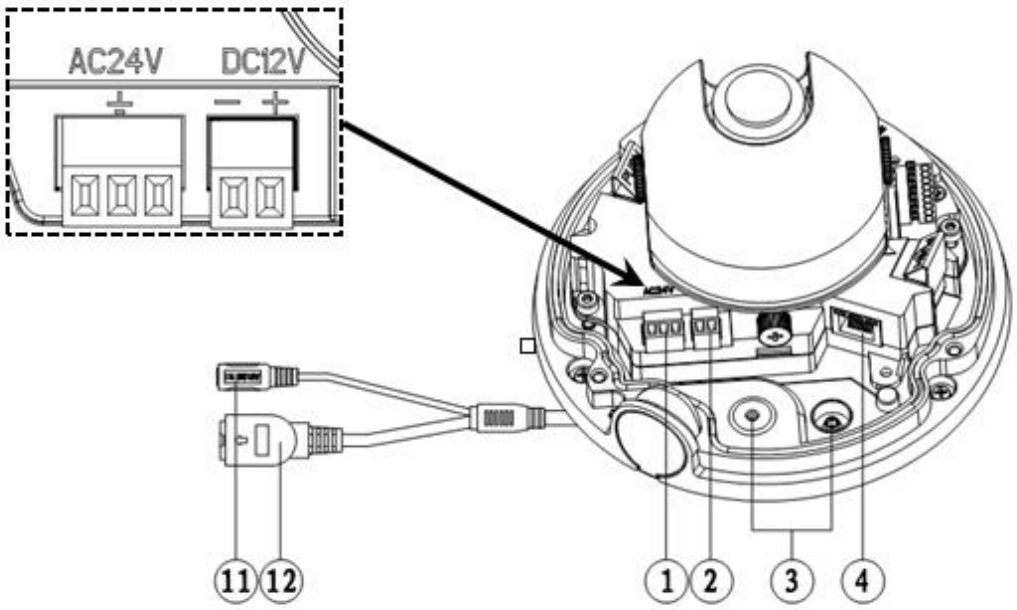


Figure 2-3

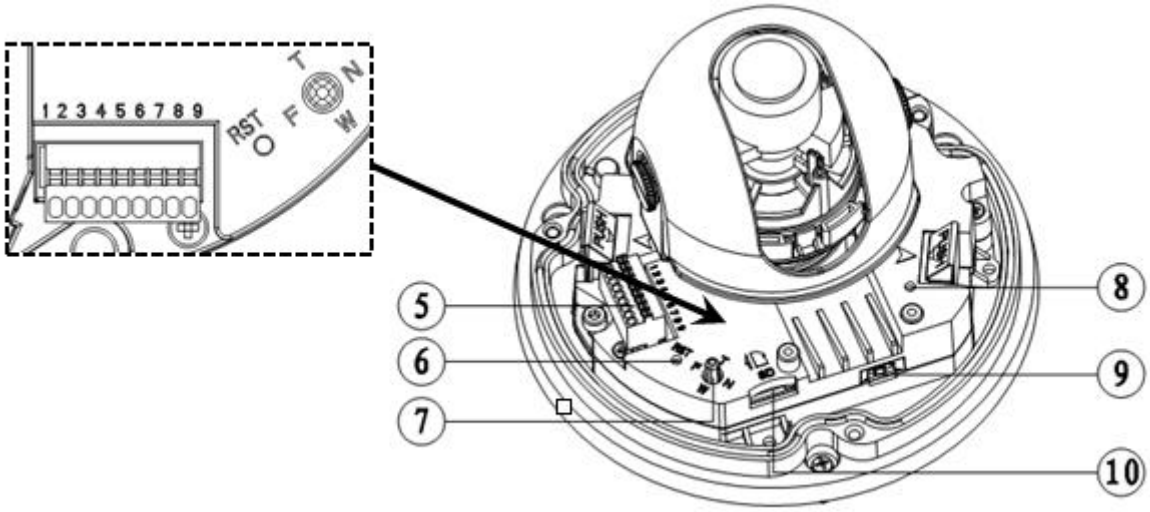


Figure 2-4

For the IR motorized zoom lens series product, the interface is shown as in Figure 2-5 and Figure 2-6.

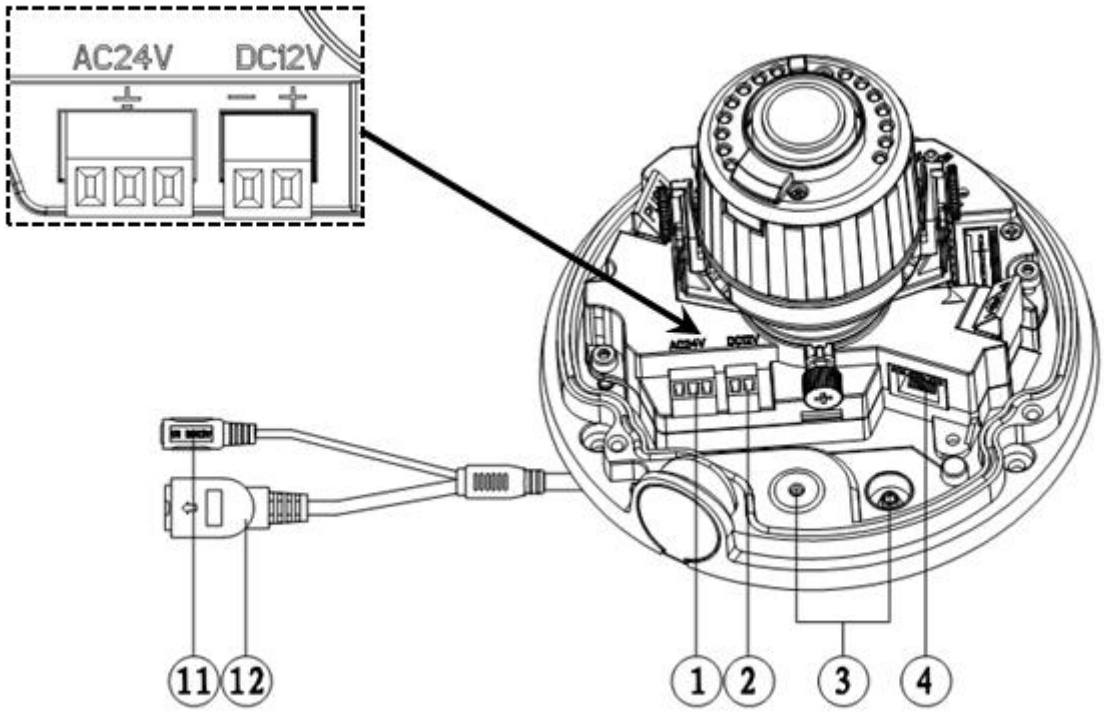


Figure 2-5

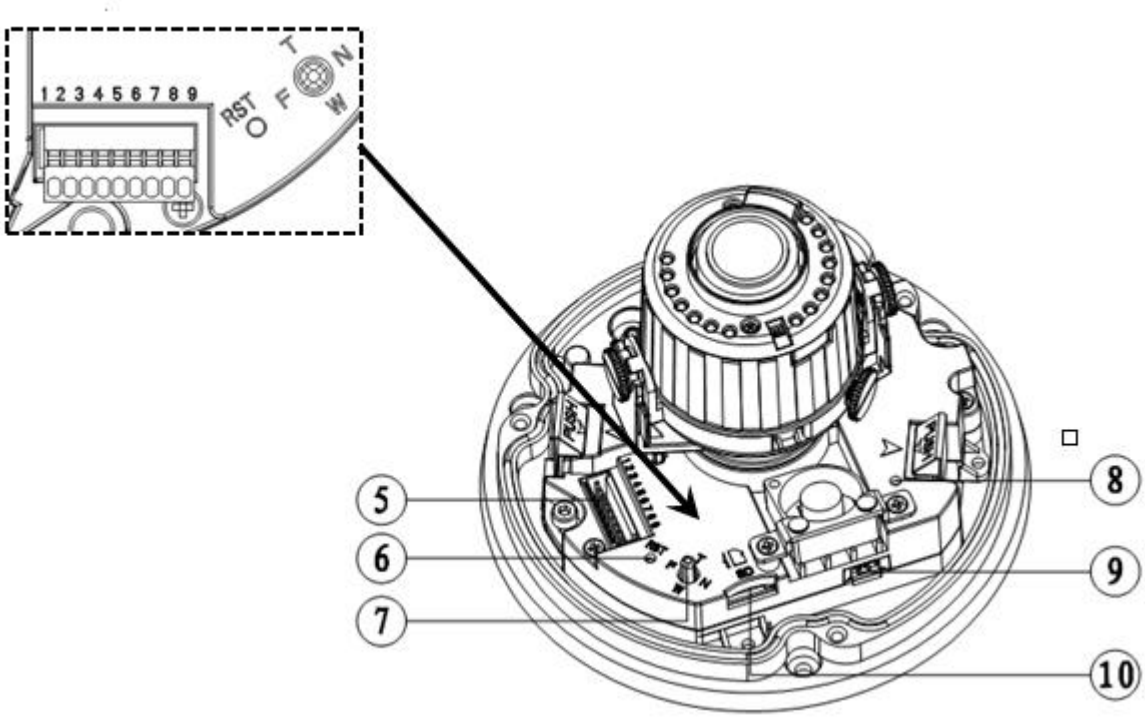


Figure 2-6

For the IR manual zoom lens series product, the interface is shown as in Figure 2-7 and Figure 2-8.

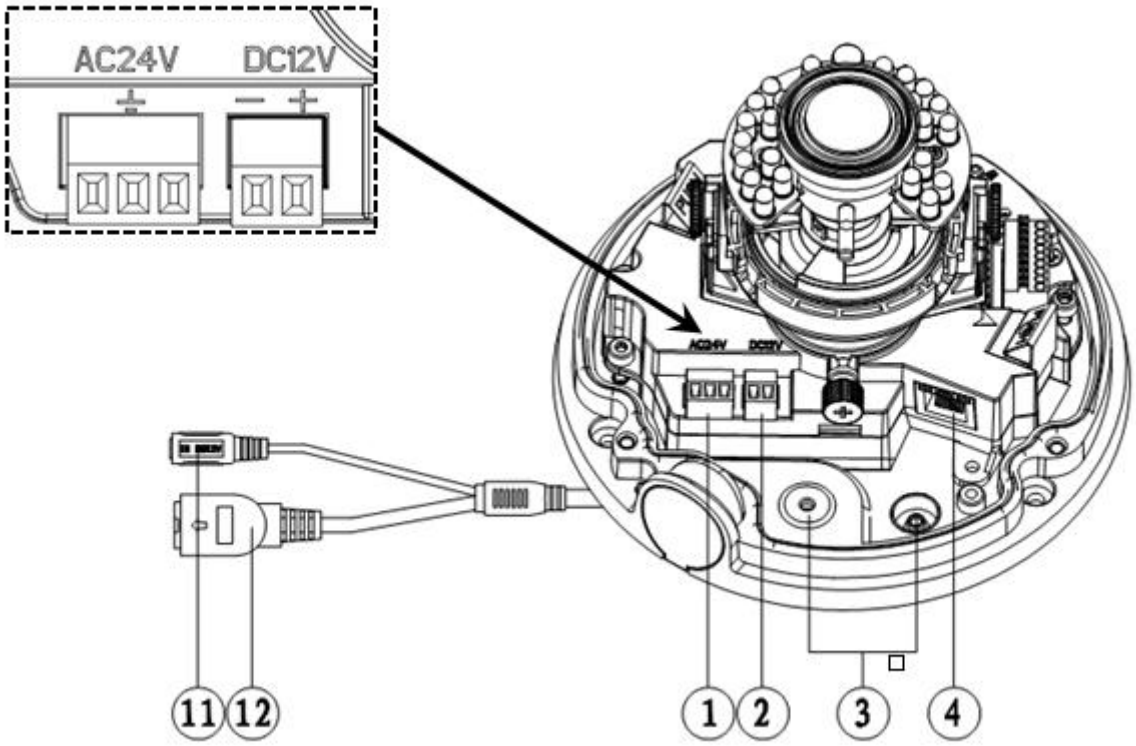


Figure 2-7

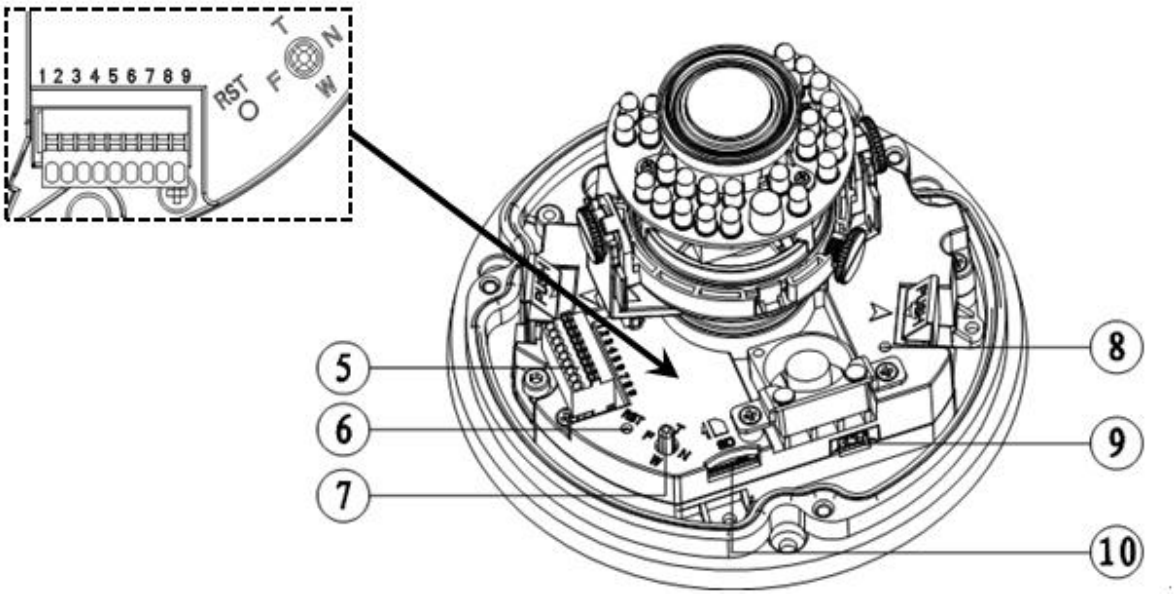


Figure 2-8

Please refer to the following sheet for external connection port definition information.

SN	Port	Port Name	Connector	Function Description
1	POWER	AC 24V power port	/	Connect to AC 24V power.
2	POWER	DC 12V power port	/	Connect to DC 24V power.
3	Cable exit of the	/	/	Cable exit.

	external connected cable			
4	LAN	RJ45 network port	Ethernet port	Network cable port.
5	I/O	I/O port	/	It includes alarm input/output, audio and analog output.
6	RESET	Reset button	/	Reset button. It is to restore factory default setup.
7	AUTO FOCUS	5-direction button	/	Adjust lens angle of view and definition. Note: Only some models have this function.
8	Status indicator light	/	/	Display device running status.
9	Fan port	/	/	Connect to fan to reduce device internal problem. Please note this component is optional.
10	Micro SD	Micro SD card slot entry	Micro SD card	Connect to Micro SD card to realize local storage.
11	POWER	12V power port	/	The power port of the external connected cable. Default input is DC 12V.
12	LAN	Network port	Ethernet port	The network port of the external connected cable. Connect to standard Ethernet port. Support PoE.

Please refer to the following sheet for I/O port cable function information.

Port Name	Cable SN	Cable Port Name	Function Description
I/O Port	1	ALARM_NO	Alarm output port. Output alarm signal to alarm device. NO: Normal open alarm output end.
	2	ALARM_COM	Alarm output public end.
	3	GND	Ground end.
	4	ALARM_IN	Alarm input port. It is to receive the on-off signal from the external alarm source.
	5	GND	Ground end.
	6	AUDIO_IN	Input audio signal. It is to receive the analog audio signal from the devices such as pickup.
	7	AUDIO_OUT	Output audio signal to devices such as sound box.
	8	GND	Ground end.
	9	VIDEO_OUT	Output analog video signal. It can connect to TV monitor to view video.

2.3 Bidirectional talk

2.3.1 Device-end to PC-end

Device Connection

Please connect the speaker or the MIC to the audio input port of the device. Then connect the earphone to the audio output port of the PC.
Login the Web and then click the Talk button to enable the bidirectional talk function.
You can see the button becomes orange after you enabled the bidirectional talk function.
Click Talk button again to stop the bidirectional talk function.

Listening Operation

At the device end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the pc-end.

2.3.2 PC-end to the Device-end

Device Connection

Connect the speaker or the MIC to the audio input port of the PC and then connect the earphone to the audio output port of the device.
Login the Web and then click the Talk button to enable the bidirectional talk function.
You can see the button becomes orange after you enabled the audio talk function.
Click Talk button again to stop the bidirectional talk function.
Please note the on-site listening operation is null during the bidirectional talk process.

Listening Operation

At the PC-end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the device-end.

2.4 Alarm Setup

The alarm interface is shown as in Figure 2-9. Please follow the steps listed below for local alarm input and output connection.
1) Connect the alarm input device to the alarm input port (No.1 pin) of the I/O cable.
2) Connect the alarm output device to the alarm output port (No.4 pin) and alarm output public port (No.3 pin). The alarm output port supports NO (normal open) alarm device only.
3) Open the Web, go to the Figure 2-9. Please set the alarm input 01 port for the first channel of the I/O cable (No.4 pin). Then you can select the corresponding type (NO/NC.)
4) Set the WEB alarm output. The alarm output 01 is for the alarm output port of the device. It is the No.1 pin of the I/O cable.

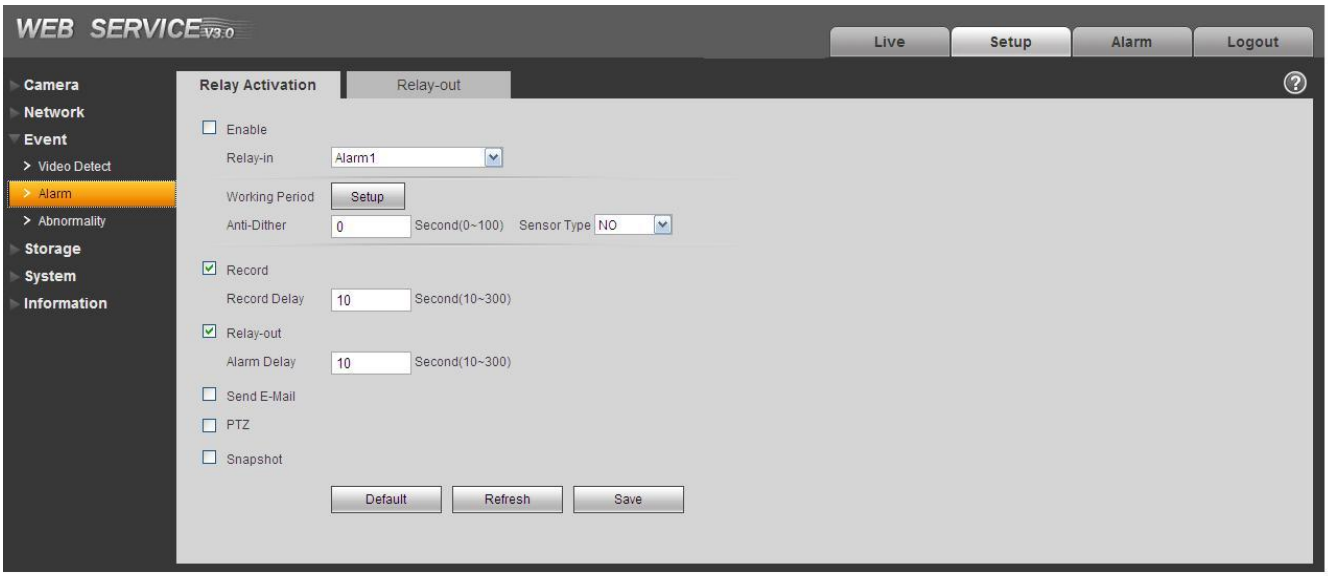


Figure 2-9

Please refer to the following figure for alarm input information. See Figure 2-10.
Alarm input: When the input signal is idle or grounded, the device can collect the different statuses of the alarm input port. When the input signal is connected to the 5V or is idle, the device collects the logic “1”. When the input signal is grounded, the device collects the logic “0”.

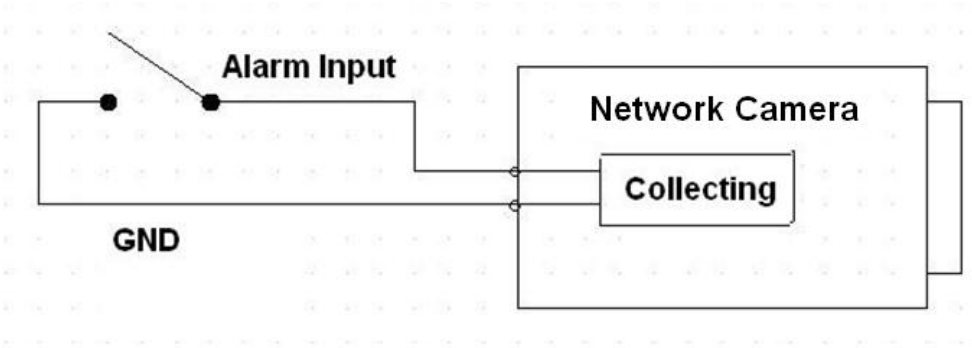


Figure 2-10

Please refer to the following figure for alarm output information. See Figure 2-11.
Port ALARM_COM and Port ALARM_NO composes an on-off button to provide the alarm output.
If the type is NO, this button is normal open. The button becomes on when there is an alarm output.
If the type is NC, this button is normal off. The button becomes off when there is an alarm output.

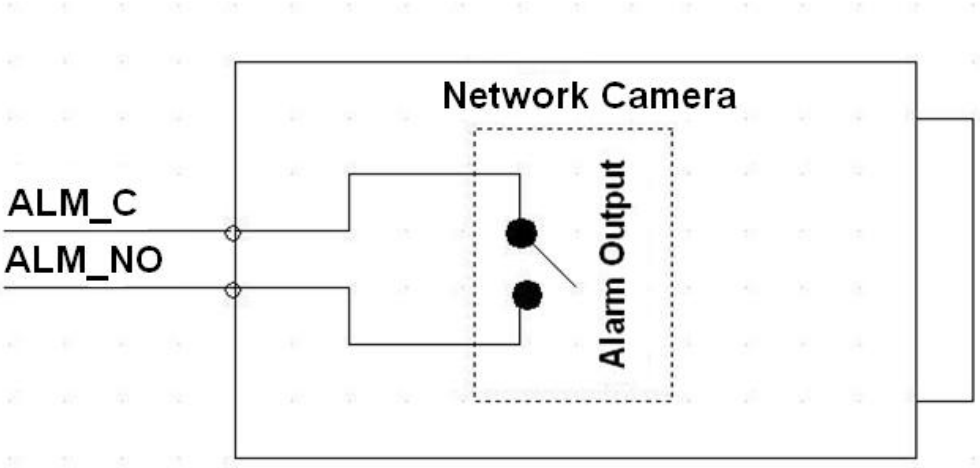


Figure 2-11

3 Installation

Important

- **Before you complete the installation and setup, do not remove the electrostatic attraction film on the transparent enclosure. Otherwise it may result in injury.**
- **After remove electrostatic attraction film, do not touch dome enclosure in case it may leave stain.**
- **Before the installation, please make sure the installation surface can sustain at least 3X weight of the bracket and the camera.**

3.1 Device Installation Introduction

Please refer to Figure 3-1 for device installation space information. You can use screws (diameter is less than 4.5mm) to secure the device. You can see there are installation position map and installation screws in the accessories bag for you to install the device conveniently.

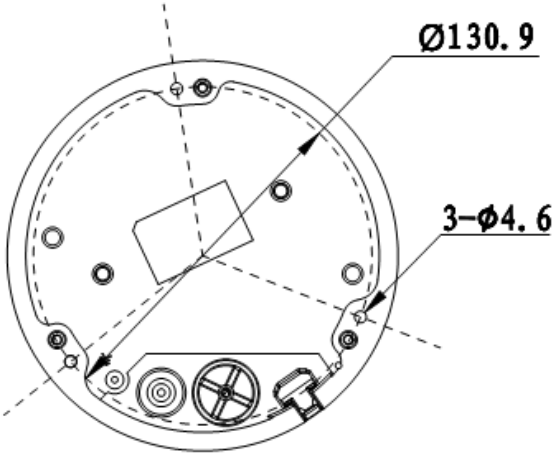
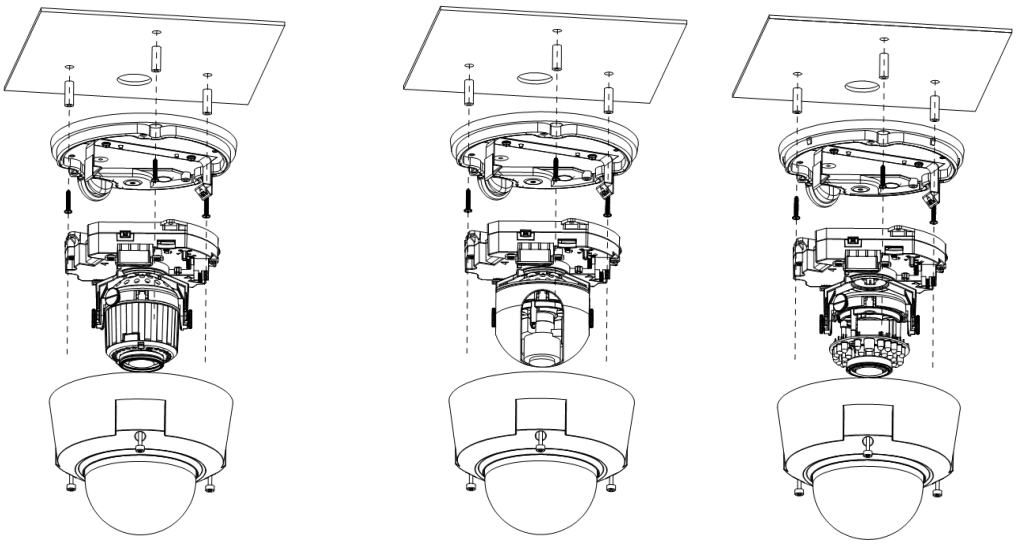


Figure 3-1

3.2 Device Installation Steps

3.2.1 General Installation

The general interface is shown as in Figure 3-2.



IR Motorized Zoom Lens Series Non-IR Series IR Manual Zoom Series

Figure 3-2

Step 1

Take the installation position map from the accessories bag and then paste it on the installation ceiling or the wall according to the monitor area. Please dig three bottom holes of the plastic expansion bolts according to the map. Take three expansion bolts from the accessories bag and then insert them to the holes you just dug and then fix firmly. If you need to dig a hole to pull through the cable, you need to dig a cable exit hole (The diameter is more than 28mm) on the installation surface according to the installation positioning map.

Step 2

Use the inner hex wrench from the accessories bag to unfasten the 3 hex screws on the dome camera enclosure to open it.

Step 3

Please remove the device cable (Provided) network port and the power terminal. Use the inner hex wrench (Provided) to remove the 2 inner hex screws from the dome driver module. Then please follow the prompt on the device to push the metal hook to two sides. Remove the dome driver module from the chassis. See Figure 3-3.

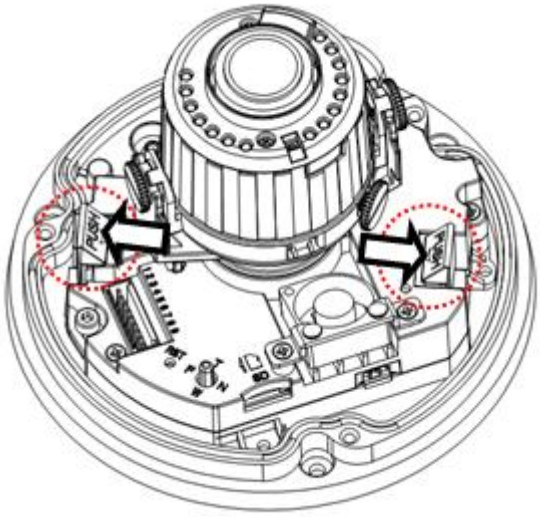


Figure 3-3

Step 4

Adjust the chassis of the device to the proper position and pull the cable to the cable exit of the installation surface. Line up the holes of the chassis to the three expansion bolt holes you dug in Step 1. Take three ST3.0 self-tapping screws and secure them in the three plastic expansion bolts. Now the chassis is secure on the installation surface.

Important

Please earth the device GND hole ⏚ (GND) to enhance the reliability of the device. The GND port is near the cable exit of the rear panel. The GND screw thread specification is M3-6mm.

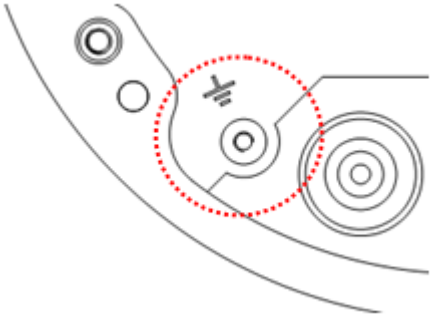


Figure 3-4

Step 5

Please refer to the Step 3 to put the driver module back to the metal hooks of the chassis. Then use the inner hex wrench to secure the two inner hex screws to the chassis. Then connect the network cable and the power terminal.

Step 6

Adjust the lens to the proper angle according to your monitor requirements.

a) For the IR series product, you can skip current step and go the step b) directly. For the non-IR series product, push the port slightly to remove the decoration enclosure from the black plastic enclosure. See Figure 3-5.

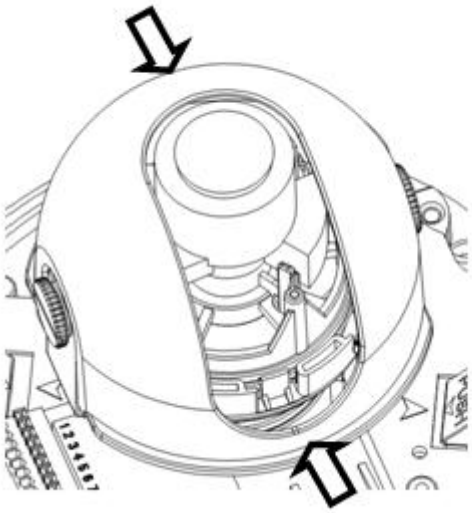


Figure 3-5

b) Lens pan rotation angle setup. Please refer to Figure 3-6 to unfasten the lock screw A and adjust the pan monitor angle to the proper position. Then fix the lock screw A. The pan angle ranges from 0°~+350°.

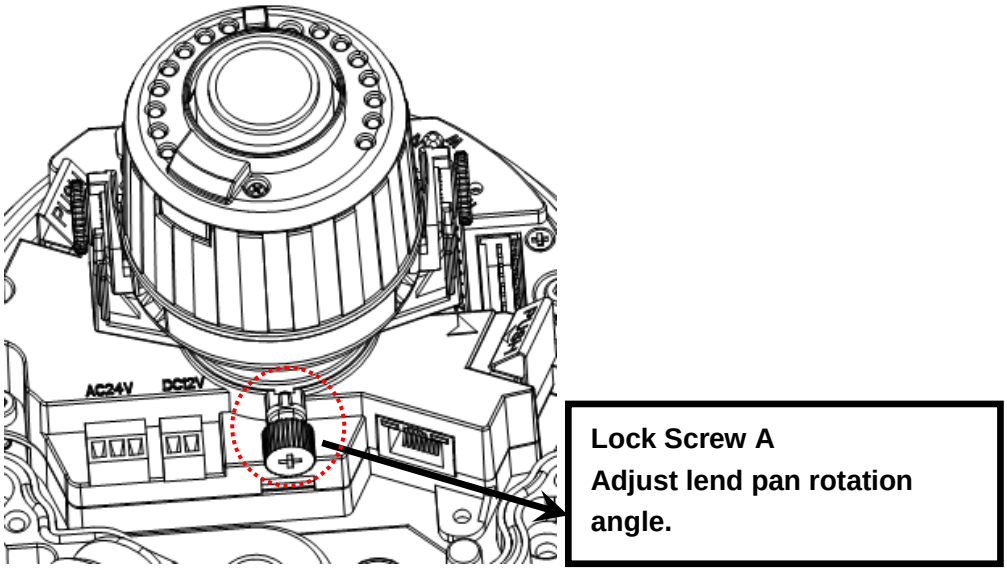


Figure 3-6

c). Lens tilt rotation angle. Please refer to Figure 3-7 to unfasten the lock screw B and lock screw C and adjust the tilt monitor angle to the proper position. Then fix the lock screw B and lock screw C. The tilt angle ranges from -23°~+73°.

d). Image pan rotation angle setup. Please refer to Figure 3-7 to turn lock screw D to adjust the video pan angle. Then fix the lock screw B and C. The video pan angle ranges from 0°~+350°.

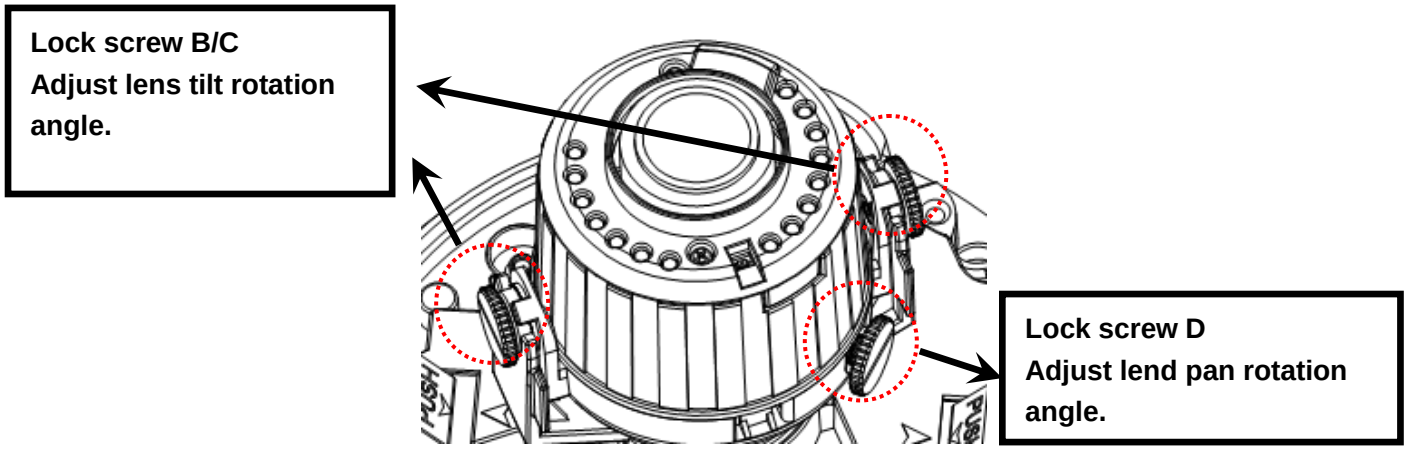


Figure 3-7

e) For the motorized zoom series product, please skip current step. Please refer to chapter 3.2.2 for the lens zoom and focus operation of the manual focus series product.

f) For the IR series product, please skip current step and complete the angle setup directly. For the non-IR series product, please put back the black plastic decoration enclosure to complete the angle setup.

Important

Please note Figure 3-6 and Figure 3-7 is based on the IR motorized zoom camera. For the IR manual zoom camera and non-IR series product, the lock screw position and the lens angle adjustment are the same.

Step 7

Line up the dome camera protection enclosure to the cable exit on the side panel. Put the enclosure back and then use the inner hex wrench to secure the 3 inner hex screws firmly. Now the installation is complete.

Note

Usually we recommend, after the installation, please take the three white static protection gaskets from the accessories bag and insert them to the screw holes of the protection enclosure. It is to enhance device reliability.

3.2.2 Manual Zoom Lens Focus Operation

The manual zoom lens focus interface is shown as in Figure 3-8.

Step 1

Slightly loosen the adjusting screw E and push the adjust screw E to make it swing. Adjust the lens focus to the proper position according to the displayed video.

Step 2

Slightly loosen the adjusting screw F and push the adjust screw F to make it swing. Adjust the lens to get the clear video and then fix the adjusting screw firmly.

Step 3

When you are securing the adjusting screw F, you can see the video may become blur. Please push the adjusting screw E to adjust the video slightly. Please secure the adjust screw E if you get a clear video.

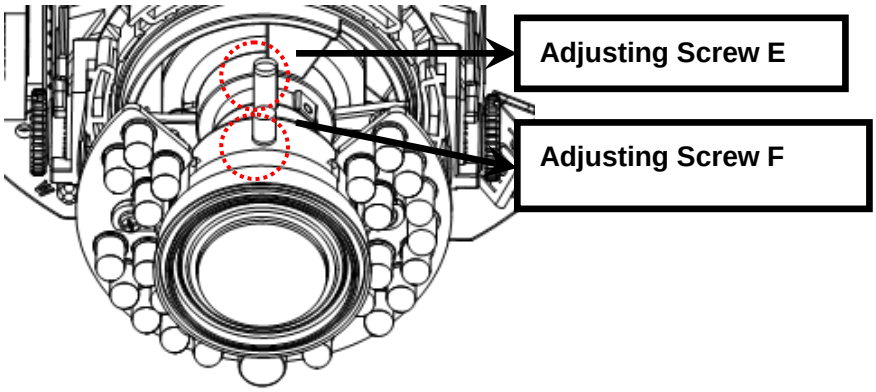


Figure 3-8

3.2.3 Side Cable Exit

If you adopt side cable exit when you are installing the device, you need to remove the plastic decoration plug from the side of the chassis. Use the proper tool to dig through the part specified in Figure 3-9 to form a cable exit. Put the plastic decoration plug back to the chassis and then pull the cable through the side panel of the chassis.

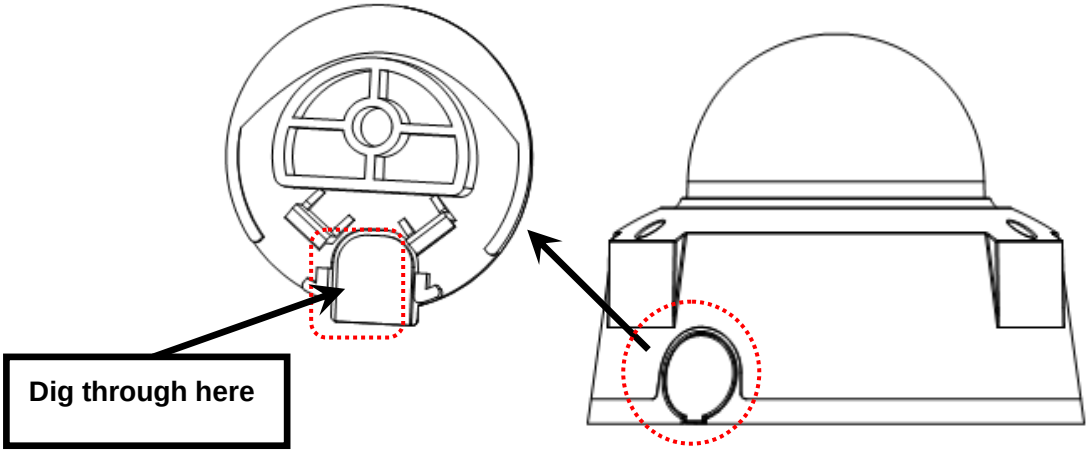


Figure 3-9

For some special user, he may need the metal protection tube to protect when he pulls through the cable from the side cable. There is PG11screw thread port when you pull through the cable from the side panel. Please remove the plastic decoration plug from the side panel of the chassis and pull through the cable to the tunnel of the PG11 screw thread. Now secure the tunnel in the PG11 screw threaded hole of the device.

3.2.4 Cable Connection

The device reserves two cable exits. The pin diameter shall be less than 15mm. One of the cable exits has M22 screw thread and can work with the default combination cable to remove the risk of the dragging and pulling of the cable.

The device has two waterproof airproof plugs (One default position is the cable exit of the chassis of the device and the other is in the accessories bag.). The waterproof airproof plug has two functions. One is to fill in the cable exit and pull through the cable. It supports the cable whose diameter ranges from 4.0~6.0. It is very convenient for you to do the waterproof work when you pull the cable through your own exit. Please refer to the steps listed.

Step 1

Take the waterproof airproof plug out, pull the cable (diameter ranges from 4.0 to 6.0) through the waterproof airproof plug. See Figure 3-10.

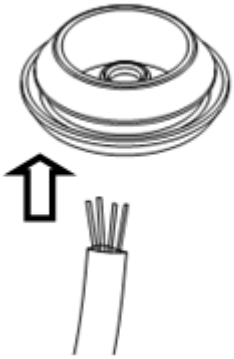


Figure 3-10

Step 2

Before you go to the Step 4 in the chapter 3.2.1 installation steps, please pull through cable with the waterproof airproof plug to the device chassis via the installation hole at the bottom of the chassis and then connect the cable pins.

Step 3

Refer to Step 4 and Step 5 in the chapter 3.2.1 installation steps to install and connect the cable pin to the device and then follow the proper steps to go on the installation.

Important

This series product has the power connection pin and I/O connection pin for you to pull through the signal cable.

3.3 Micro SD Card Installation

Warning!

Please unplug the device power cable and then shutdown the device before you install the Micro SD card.

Step 1

Please refer to Step2 in chapter 3.2.1 installation steps to open the device protection enclosure.

Step 2

Please find the “SD” mark inside the device and adjust the Micro SD card direction according to prompt direction. Insert the card to the slot and then install the Micro SD card. See Figure 3-11.

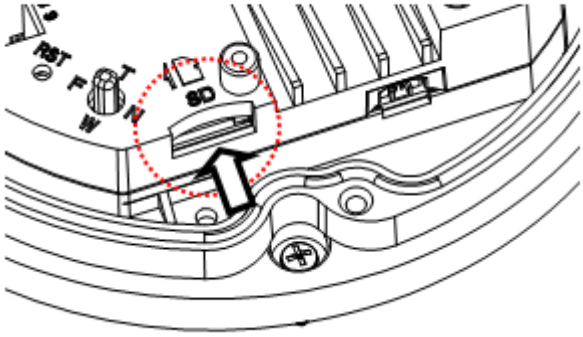


Figure 3-11

Step 3

Please refer to Step 7 in chapter 3.2.1 to put the device protection enclosure back.

4 Quick Configuration Tool

4.1 Overview

Quick configuration tool can search current IP address, modify IP address. At the same time, you can use it to upgrade the device.
Please note the tool only applies to the IP addresses in the same segment.

4.2 Operation

Double click the “ConfigTools.exe” icon, you can see an interface is shown as in Figure 4-1.
In the device list interface, you can view device IP address, port number, subnet mask, default gateway, MAC address and etc.

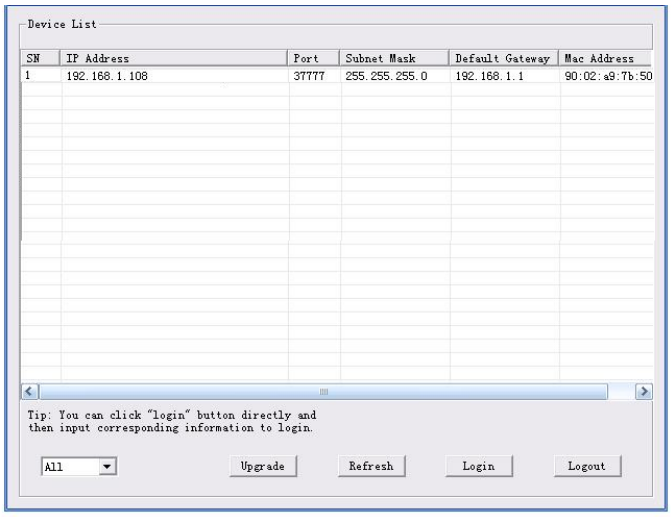


Figure 4-1

Select one IP address and then right click mouse, you can see an interface is shown as in Figure 4-2.
Note:
You can set the IP address, subnet mask and gateway for the network camera and PC. Please note network camera IP address and PC IP address shall be in the same network segment if there is no router. Network camera default IP address is 192.168.1.108. If there is a router, please set the corresponding gateway and subnet mask.
The factory default user name is **admin** and password is **admin**. For security reasons, please modify your password after you first login.
For detailed WEB operation, please refer to the Network Camera Web Operation Manual in the resource CD.

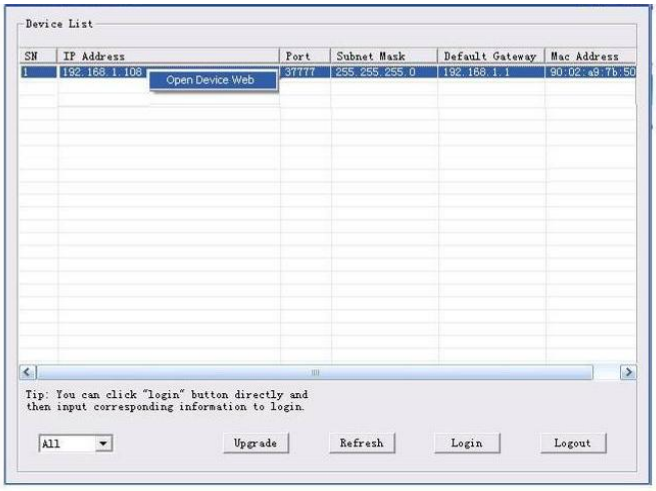


Figure 4-2

Select the “Open Device Web” item; you can go to the corresponding web login interface. See Figure 4-3.

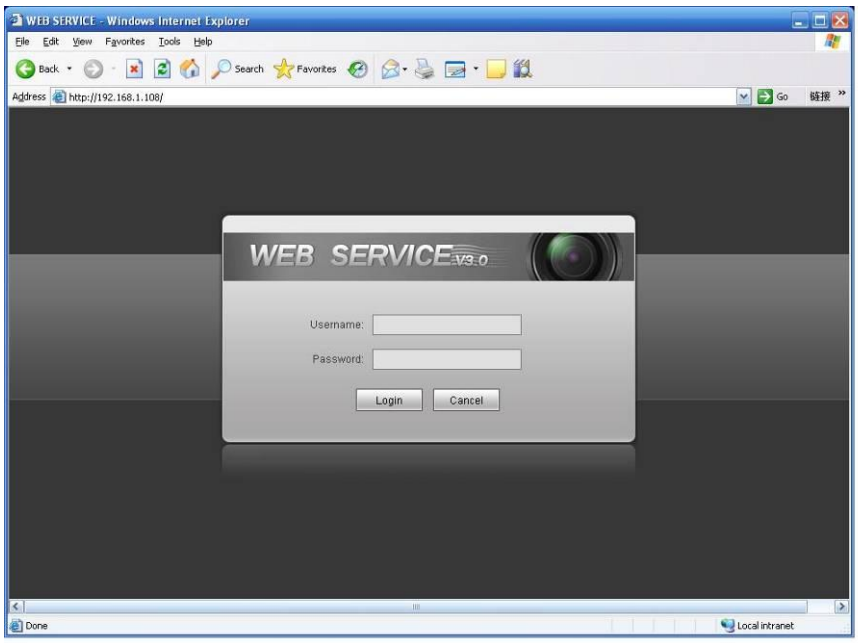


Figure 4-3

If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

In the configuration tool search interface (Figure 4-1), please select a device IP address and then double click it to open the login interface. Or you can select an IP address and then click the Login button to go to the login interface. See Figure 4-4.

In Figure 4-4, you can view device IP address, user name, password and port. Please modify the corresponding information to login.

Please note the port information here shall be identical with the port value you set in TCP port in Web Network interface. Otherwise, you can not login the device.

If you are using device background upgrade port 3800 to login, other setups are all invalid.

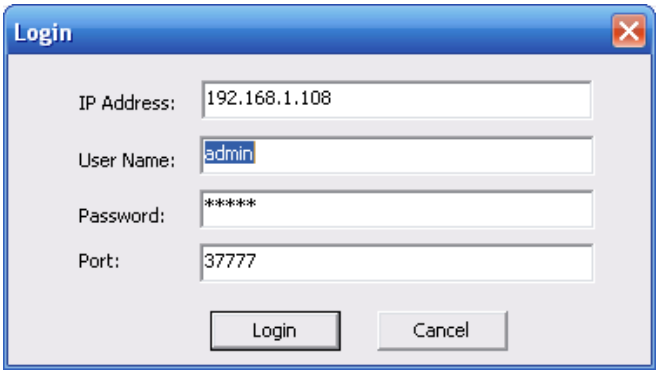


Figure 4-4

After you logged in, the configuration tool main interface is shown as below. See Figure 4-5.

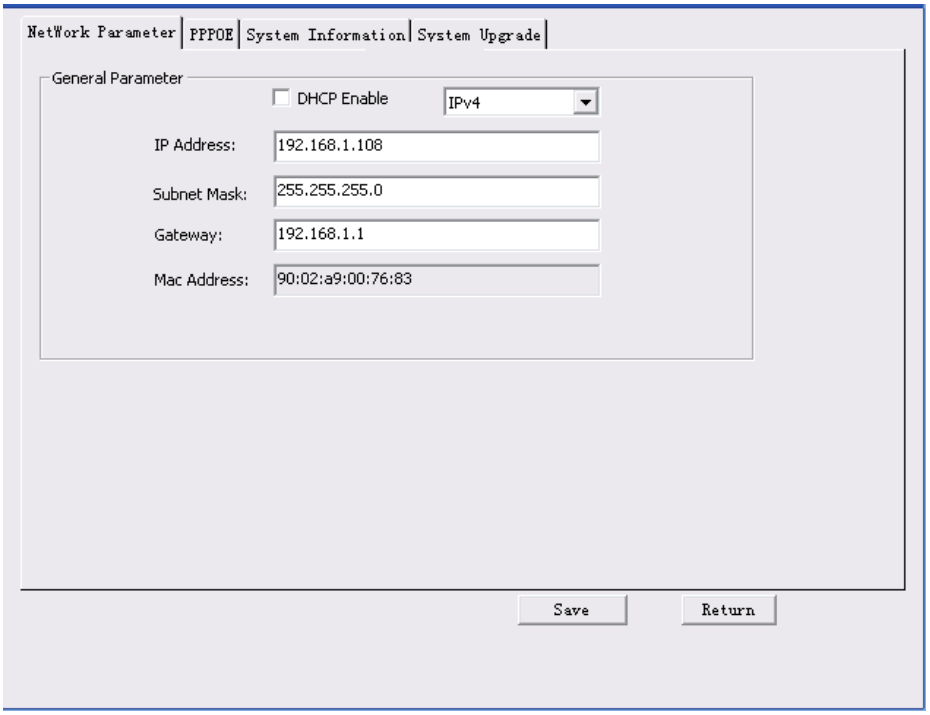


Figure 4-5

For detailed information and operation instruction of the quick configuration tool, please refer to the *Quick Configuration Tool User's Manual* included in the resources CD.

5 Web Operation

These series network camera products support the Web access and management via PC.
Web includes several modules: Monitor channel preview, system configuration, alarm and etc.

5.1 Network Connection

Please follow the steps listed below for network connection.

- Make sure the network camera has connected to the network properly.
- Please set the IP address, subnet mask and gateway of the PC and the network camera respectively. Network camera default IP address is 192.168.1.108. Subnet mask is 255.255.255.0. Gateway is 192.168.1.1
- Use order ping ***.***.***.***(* network camera address) to check connection is OK or not.

5.2 Login and Main Interface

Open IE and input network camera address in the address bar.
For example, if your camera IP is 192.168.1.108, then please input http:// 192.168.1.108 in IE address bar. See Figure 5-1.

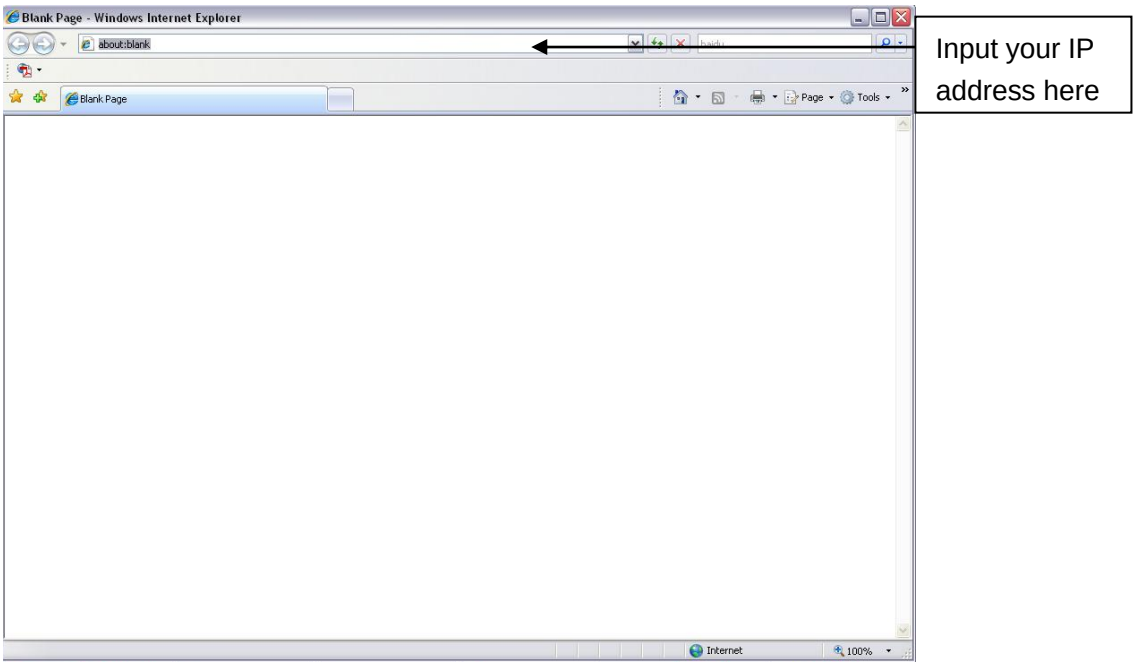


Figure 5-1

The login interface is shown as below. See Figure 5-2.
Please input your user name and password.
Default factory name is admin and password is admin.
Note: For security reasons, please modify your password after you first login.

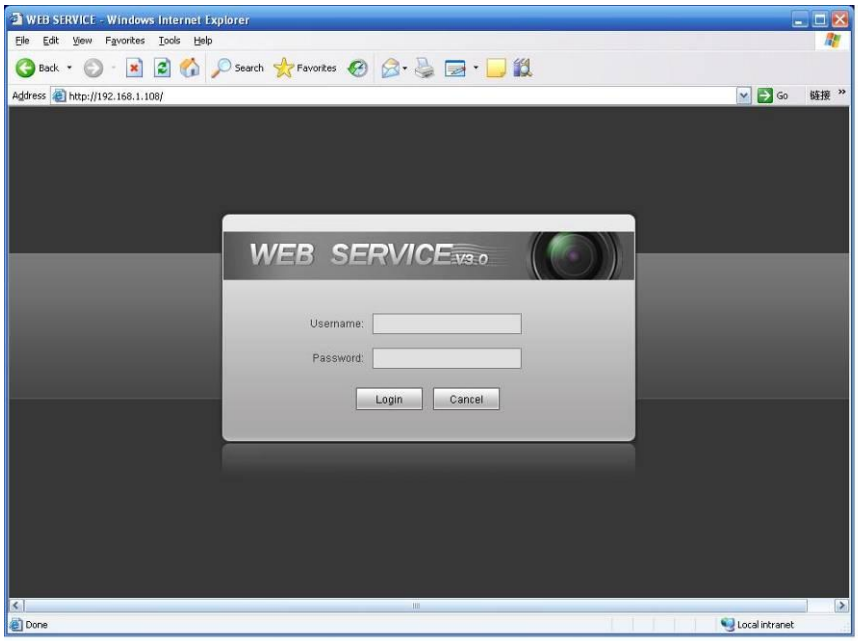


Figure 5-2

If it is your first time to login in, system pops up warning information to ask you whether install control webrec.cab or not after you logged in for one minute. Please click OK button, system can automatically install the control. When system is upgrading, it can overwrite the previous Web too.

If you can't download the ActiveX file, please check whether you have installed the plug-in to disable the control download. Or you can lower the IE security level. See Figure 5-3.

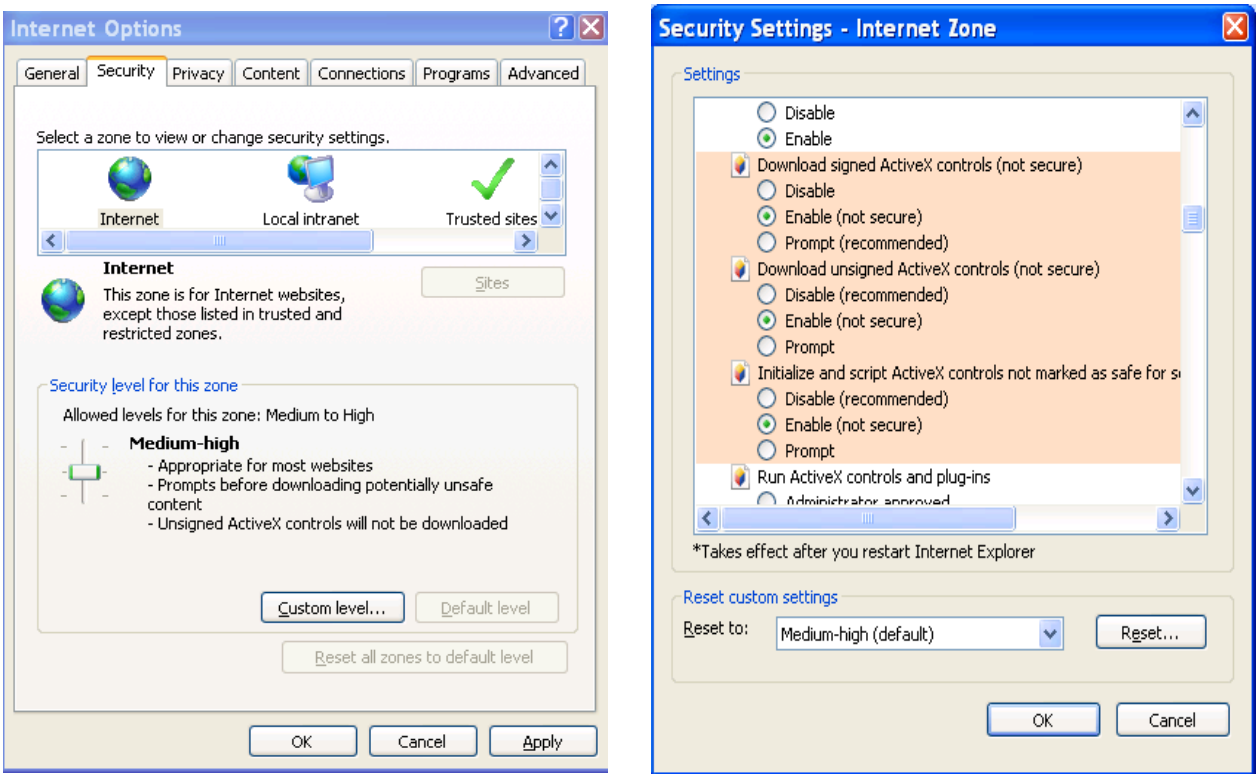


Figure 5-3

After you logged in, you can see the main window. See Figure 5-4.

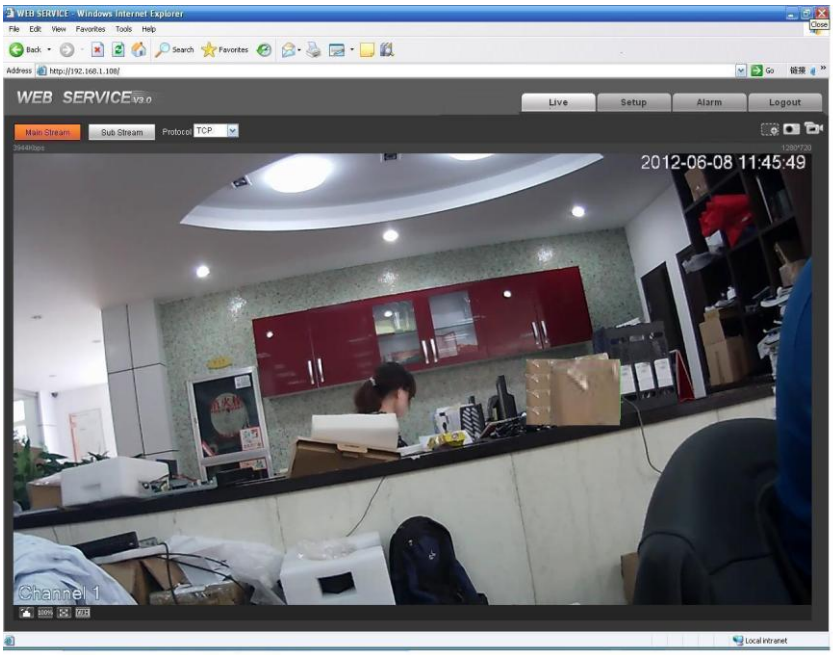


Figure 5-4

Please refer to the Web Operation Manual included in the resource CD for detailed operation instruction.

6 FAQ

Bug	
I can not boot up the device.	Please click RESET button for at least five seconds to restore factory default setup.
Micro SD card write times	Do not set the Micro SD card as the storage media to storage the schedule record file. It may damage the Micro SD card duration.
I can not use the disk as the storage media.	When disk information is shown as hibernation or capacity is 0, please format it first (Via Web).
I can not upgrade the device via network.	When network upgrade operation failed, you can use port 3800 to continue upgrade.
Recommended Micro SD card brand	Kingston 4GB, Kingston 1GB, Kingston 16GB, Transcend 16GB，SanDisk 1G, SanDisk 4G. Usually we recommend the 4GB (or higher) or industry-level high speed card in case the slow speed results in data loss.
Audio function	Please use active device for the audio monitor input, otherwise there is no audio in the client-end.
The lightproof ring of the IR device	The lightproof ring of the IR device lens is the necessary component when it works. You can not view the clear video when the IR light is on if you remove the lightproof ring.

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Case	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note

- **This user's manual is for reference only. Slight difference may be found in user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks mentioned are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website for more information.**